

### CLAIMS

1. A terminal for generating an electromagnetic field adapted to communicating with at least one transponder entering this field, including:

an oscillating circuit adapted to being excited by a high-frequency remote supply  
5 signal of the transponder;

an amplitude demodulator for detecting possible data transmitted by the transponder by modulating, at the rate of a sub-carrier, a load that it forms on the terminal's oscillating circuit;

and including:

10 means for regulating a signal phase in the terminal's oscillating circuit in response to a reference value having a long response time as compared to said sub-carrier;

means for measuring variables linked to a current in the oscillating circuit and to a voltage thereacross; and

means for comparing present values of these variables to predetermined values.

15 2. The terminal of claim 1, further including:

means for deactivating said phase regulation means; and

means for forcing a value of a settable element of the oscillating circuit.

20 3. The terminal of claim 2, wherein said settable element is formed of a variable capacitive element of the oscillating circuit of the terminal.

4. The terminal of claim 2, wherein the settable element is common to the phase regulation means and to the forcing means.

25 5. A method for controlling the terminal of claim 1, including exploiting the results of the comparison means to detect a presence of a transponder in the terminal's field.

30 6. The method of claim 5, including, in the absence of a useful signal of sufficient amplitude to enable detection of data by the demodulator and if a transponder has been detected by the comparison of the current and predetermined values:

deactivating the phase regulation means; and

forcing the value of the settable element of the oscillating circuit to a value such that said variables recover said predetermined values.

5           7.     The method of claim 5, wherein said predetermined values correspond to values measured and stored during an off-load operation of the terminal, while no transponder is present in its field.

          8.     The method of claim 7, including forcing the value of the settable element to a  
10    value determined by the phase regulation means during the off-load operation.

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